CLAIMS

1. An ultrasonic welding apparatus comprising:
an ultrasonic vibrator;
an ultrasonic horn whose contact surface that contacts an object is subjected to a matte finishing process and which transmits ultrasound generated by the ultrasonic vibrator; and
a moving mechanism that moves the ultrasonic horn in a direction toward and away from the object.

2. An ultrasonic welding apparatus according to Claim 1, wherein the contact surface of the ultrasonic horn is subjected to the matte finishing process so that a ten-point average roughness thereof is in a range of 10μm to 25μm, inclusive.

3. An ultrasonic welding apparatus according to Claim 1 or Claim 2, wherein ultrasonic welding apparatus is constructed so that by placing the contact surface of the ultrasonic horn in contact with a front end portion of a welding convex portion formed on the object in a state where the welding convex portion has been inserted through a through hole formed in another object and causing the moving mechanism to move the horn toward the welding convex portion while having the ultrasonic vibrator generate the ultrasound, the front end portion is melted and crushed into a plate-like shape to form a fixing head portion to fix the other object to the object.

4. An information recording medium manufacturing apparatus comprising: an ultrasonic vibrator; an ultrasonic horn whose contact surface that contacts an object is subjected to a matte finishing process and which transmits ultrasound generated by the

ultrasonic vibrator; and a moving mechanism that moves the ultrasonic horn in a direction toward and away from the object,

wherein the information recording medium manufacturing apparatus is capable of manufacturing a cartridge-type information recording medium by placing the contact surface of the ultrasonic horn in contact with a front end portion of a welding convex portion formed on a recording medium case as the object in a state where the welding convex portion has been inserted through a through hole formed in a recording medium component and causing the moving mechanism to move the horn toward the welding convex portion while having the ultrasonic vibrator generate the ultrasound to melt and crush the front end portion into a plate-like shape to form a fixing head portion and fix the recording medium component to the recording medium case.

5. An ultrasonic welding method that fixes an object to another object by placing a contact surface of an ultrasonic horn, which has been subjected to a matte finishing process, in contact with a front end portion of a welding convex portion formed on the object in a state where the welding convex portion has been inserted through a through hole formed in the other object and moving the ultrasonic horn toward the welding convex portion while applying ultrasound to the welding convex portion via the ultrasonic horn to melt and crush the front end portion of the welding convex portion into a plate-like shape to form a fixing head portion.

6. An object on part of a surface of which a matte pattern is formed by a welding process.

7. A cartridge case including a recording medium case as an object on part of a surface of which a matte pattern is formed by a welding process.

8. A cartridge case according to Claim 7, wherein the matte pattern is formed with a surface of a boss for fixing a spring as the surface.